

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-44. (Canceled)

Claim 45: (new) A computer implemented method of displaying sequences of bases, the method comprising:

displaying at least one reference sequence on a display device;

evaluating hybridization between at least one sample sequence and nucleic acid probes in order to call bases of said at least one sample sequence;

separately displaying said at least one sample sequence on said display device, wherein said displayed reference and sample sequences are displayed so that bases at a same position in said displayed reference and sample sequences are aligned on said display device;

receiving user input to select a plurality of displayed sequences for comparison by the computer system;

comparing said selected sequences; and

indicating on said display device bases that differ between or among the selected sequences at the same position including indicating bases in a selected sample sequence that differ from bases at corresponding positions in a selected reference sequence.

Claim 46: (new) The method of claim 45, further comprising indicating on said display device said selected sequences.

Claim 47: (new) The method of claim 45, further comprising displaying a common symbol on said display device next to said selected sequences.

Claim 48: (new) The method of claim 45, wherein said common symbol is a number.

Claim 49: (new) The method of claim 45, wherein said at least one reference sequence and said at least one sample sequence are monomer strands of DNA or RNA.

Claim 50: (new) The method of claim 45, wherein said bases are A, C, G, or T(U).

Claim 51: (new) The method of claim 45, wherein said at least one reference sequence includes a chip wild-type sequence.

Claim 52: (new) The method of claim 51, wherein said chip wild-type sequence is displayed as the first sequence.

Claim 53: (new) The method of claim 51, further comprising displaying a label to identify said chip wild-type sequence.

Claim 54: (new) The method of claim 53, wherein said label is a capital C.

Claim 55: (new) The method of claim 45, further comprising:
displaying a name associated with each of said at least one reference sequence; and
displaying a name associated with each of said at least one sample sequence.

Claim 56: (new) A computer program product that displays sequences of bases, comprising:

computer code that displays at least one reference sequence on a display device;

computer code that evaluates hybridization between at least one sample sequence and nucleic acid probes in order call bases of said at least one sample sequence;

computer code that separately displays said at least one sample sequence on said display device, wherein said displayed reference and sample sequences are displayed so that bases at a same position in said displayed reference and sample sequences are aligned on said display device;

computer code that receives user input to select a plurality of displayed sequences for comparison by a computer system;

computer code that compares said selected sequences;

computer code that indicates on said display device bases that differ between or among the selected sequences at corresponding positions including indicating bases in a selected sample sequence that differ from bases at corresponding positions in a selected reference sequence; and

a computer readable medium that stores said computer codes.

Claim 57: (new) The computer program product of claim 56, further comprising computer code that indicates on said display device said selected sequences.

Claim 58: (new) The computer program product of claim 56, further comprising computer code that displays a common symbol on said display device next to said selected sequences.

Claim 59: (new) The computer program product of claim 58, wherein said common symbol is a number.

Claim 60: (new) The computer program product of claim 56, wherein said at least one reference sequence and said at least one sample sequence are monomer strands of DNA or RNA.

Claim 61: (new) The computer program product of claim 56, wherein said bases are A, C, G, or T(U).

Claim 62: (new) The computer program product of claim 56, wherein said at least one reference sequence includes a chip wild-type sequence.

Claim 63: (new) The computer program product of claim 62, wherein said chip wild-type sequence is displayed as the first sequence.

Claim 64: (new) The computer program product of claim 62, further comprising computer code that displays a label to identify said chip wild-type sequence.

Claim 65: (new) The computer program product of claim 64, wherein said label is a capital C.

Claim 66: (new) The computer program product of claim 56, further comprising: computer code that displays a name associated with each of said at least one reference sequence; and

computer code that displays a name associated with each of said at least one sample sequence.